

2771-594-CIP

RECEIVED
CENTRAL FAX CENTER

MAY 22 2007

Section II (Remarks)**A. Summary of Amendment to the Claims**

Claims 1, 7, 18, and 21 have been amended as set forth in the above Complete Listing of the Claims.

As amended, the claims are supported by the specification and the original claims. Specifically, the provisos of claims 1 and 18 have been amended to include that the disilane substituents are not simultaneously diethylamino and the provisos of claims 7 and 21 have been amended to include that R₁-R₁₂ are not simultaneously methyl or ethyl. Such amendment is supported by language throughout the specification regarding the independent selectability of the amino nitrogen substituents.

No new matter, as defined by 35 U.S.C. § 132, has been added to the amended claims.

Upon entry of the amendments, claims 1-31 will be pending, of which 14-17 and 24-31 are withdrawn.

B. Claim Rejections under 35 USC § 102

Claims 1-12, 18, 20, 21 and 23 are rejected in the Final Office Action mailed March 22, 2007 under 35 U.S.C. § 102 (b) as being anticipated by Wan, Y. and Verkade, J., Synthesis of (dialkylamino)disilanes: Inorganic Chemistry, 32(3), 341-4 (1993) (hereinafter "Wan et al.").

Anticipation of a claim requires the disclosure in a single prior art reference of each element of the claim under consideration. (In re Spada, 15 USPQ2d 1655 (Fed. Cir., 1990), In re Bond, 15 USPQ2d 1566 (Fed. Cir., 1990).

The examiner's attention is respectfully drawn to the amended claims. Independent claims 1 and 18 have been amended to recite that "the disilane substituents are not simultaneously dimethylamino or diethylamino" and independent claims 7 and 21 have been amended to recite that "R₁-R₁₂ are not simultaneously methyl or ethyl." By amendment of the provisos of claims 1, 7, 18, and 21, the compounds of claims 1 and 7 and the compositions of claims 18 and 21 do not comprise a silicon compound where all of the disilane substituents are simultaneously dimethylamino or simultaneously diethylamino.

Wan et al., by contrast, disclose a compound in which all amino functional groups are

2771-594-CIP

diethylamino functional groups. Accordingly, the teachings of Wan et al. do not anticipate the disilane compounds of applicants' claims 1-12, 18, 20, 21 and 23.

As Wan et al. does not describe a silicon compound where the disilane substituents are not simultaneously dimethylamino or simultaneously diethylamino, as set forth in claims 1-12 and 18-23, Wan et al. does not anticipate the claimed invention. Accordingly, withdrawal of the rejection of claims 1-12, 18, 20, 21 and 23 under 35 U.S.C. § 102(b) as being anticipated by Wan et al. is respectfully requested.

C. Claim Rejections under 35 USC §103

Claims 18-19 and 21-23 are rejected are rejected in the Final Office Action mailed March 22, 2007 under 35 U.S.C. §103(a) as unpatentable as obvious over Wan, et al.

In order for an invention to be obvious, the difference between the subject matter of the application and the prior art must be such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the art. In order to meet this standard for a proper §103 rejection, all claim limitations must be disclosed or derivable from the cited reference. (MPEP §2143.)

Wan et al., however, do not disclose all of the elements of the claimed invention.

Claims 18-19 and 21-23 recite compositions "for chemical vapor deposition of a silicon-containing film on a substrate," where the composition comprises a disilane and a hydrocarbon solvent. Wan et al., in contrast, discuss syntheses of new compounds, one of which is hexakis(diethylamino)disilane, characterized therein as compound "4." In synthesizing compound 4, Wan et al. utilize benzene in extraction of solid residue. However, the benzene is subsequently evaporated to achieve a liquid product. Wan et al. do not utilize a compound comprising disilane and hydrocarbon solvent in a chemical vapor deposition (CVD) process. In fact, CVD is not discussed in the Wan et al. paper. Wan et al. provides methods of synthesis of new compounds and characterization of those compounds. Wan et al. does not provide uses for these compounds. Accordingly, claims 18-19 and 21-23 are not obvious in light of the Wan et al. reference.

Furthermore, as discussed above in the discussion of the rejection under 35 U.S.C. §102, Wan et al. provide a disilane in which all amino functional groups are simultaneously diethylamino,

MAY 22 2007

which is at odds with the composition of applicants' claimed compounds of claims 18-19 and 21-23, since in applicants' compounds, as amended, all of the disilane substituents are not simultaneously dimethylamino or simultaneously diethylamino.

Accordingly, it is respectfully requested that the rejection of claims 18-19 and 21-23 under 35 U.S.C. § 103(a) based on Wan et al. be withdrawn.

As Wan et al. fail to provide any derivative basis for the compositions recited in claims 18-19 and 21-23, Wan et al. does not render the claimed invention obvious. Accordingly, withdrawal of the rejection of claims 18-19 and 21-23 under 35 U.S.C. § 103 (a) as being obvious over Wan et al. is respectfully requested.

CONCLUSION

Based on the foregoing, all of applicants' pending claims 1-12 and 18-23 are therefore patently distinguished over the art, and in form and condition for allowance. The examiner is requested to favorably consider the foregoing, and to responsively issue a Notice of Allowance. Claim 13 has been indicated as allowable.

The time for responding to the March 22, 2007 Final Office Action without extension was set at three months or June 22, 2007. This response is therefore timely and no fees are believed to be due for the filing of this paper. Payment of the Request for Continued Examination fee of \$790.00 specified in 37 C.F.R. § 1.17(e), as applicable to large entity, is authorized by the enclosed Credit Card Payment Form PTO-2038. Should any additional fees be required or an overpayment of fees made by this submission, please debit or credit our Deposit Account No. 08-3284, as necessary.

If any issues require further resolution, the examiner is requested to contact the undersigned attorneys at (919) 419-9350 to discuss same.


Respectfully submitted,



Steven J. Hultquist
Reg. No. 28,021
Attorney for Applicants

Date: May 22, 2007

2771-594-CIP

Date: 5/22/07
Kelly K. Reynolds
Reg. No. 51,154
Attorney for Applicants

INTELLECTUAL PROPERTY/
TECHNOLOGY LAW
Phone: (919) 419-9350
Fax: (919) 419-9354
Attorney File No.: 2771-594-CIP

Enclosures:

RCE Transmittal [1 pg.]

Credit Card Payment Form PTO-2038 [1 pg.]

The USPTO is hereby authorized to charge any deficiency or credit any overpayment of fees properly
payable for this document to Deposit Account No. 083284